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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/517,641

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Ole Jan Myhre

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03/27/2008

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EXAMINER

ZEMEL, IRINA SOPHIA

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

03/27/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/517,641	Applicant(s) MYHRE ET AL.	
	Examiner Irina S. Zemel	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/12/06;12/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of a property limitation range followed by a narrower range limitations of the same property is not appropriate and indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6,096,014 to Haffner et al., (hereinafter Haffner”)in combination with WO 99/41310 to Borealis Polymer OY, (hereinafter “Borealis ‘310”).

Haffner discloses breathable porous films obtained by polyethylenes filled with high amounts of inorganic filler, such as calcium carbonate. The films disclosed by the Haffner reference are blown films stretched with the stretching ratio of above 3 (see illustrative examples). The films exhibit improved water transmission rate and other

Art Unit: 1796

advantageous properties. The reference, while disclosing various polyethylenes, and also expressly disclosing blends of two polyethylenes with very high and very low molecular weights (low and high MFR2, as per illustrative examples), does not disclose use of bimodal polymers.

Borealis '310 disclosed bimodal polyethylene that contain a low molecular weight polyethylene fraction, and a second high molecular weight fraction. The first or low molecular fraction which exhibit MFR2 of above 100 g/10min, and a density of more than 0.960 g/cm³ (see, for example illustrative example 1, in which the α MFR2 is 410 g/10 min and density is 970 kg/m³). The second, high molecular weight fraction, which as per example 1, is copolymer of ethylene with 1-butene, is present in the overall composition in the amount 60 %. (40 % weight of the low molecular weight fraction). The composition exhibit MFR 21 of 20 g/10 min and density of 930 kg/m³. The reference further discloses possible ranges of MFR2 of the first fraction, MFR21 of the composition, densities of the first fraction and the composition all of which fully correspond to the claimed properties. (See the entire disclosure, especially "Summary of the invention" portions and illustrative examples). The reference is silent with respect to MFR2 of the composition, and the molecular weight or Mw/Mn, however, since the composition disclosed in the Borealis '310 reference is obtained via the process that is substantially identical to the process described in the instant application (and also claimed in claim 19 of the instant application), it is reasonable believed that the bimodal polyethylene composition disclosed in the Borealis '310 reference inherently exhibit the

properties identical to the claimed properties. The burden is shifted to the applicants to provide factual evidence to the contrary.

The Borealis '310 reference further discloses blown films obtained from the compositions which exhibit exceptionally good properties such as tear strength and yield. The reference further expressly discloses possibility and suitability of adding various fillers, such as chalk (or calcium carbonate).

It would have been obvious for an ordinary artisan to utilize the bi-modal polyethylene composition of Borealis '310 as the starting materials in the production of breathable films disclosed by Heffner since those composition exhibit improved tensile break, yield and modulus properties, the properties highly desired for the production of films of Heffner (see Heffner, table A, for example), and in addition result in homogeneous films.

In the alternative, it would have been obvious to use the amounts of fillers as disclosed in Haffner with the bimodal polyethylene compositions of Borealis '310 for the production of porous films for applications where high water transmission rate of the resulting films is desirable as per teachings of Haffner.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6,096,014 to Haffner et al., (hereinafter Haffner) in combination with WO 99/41310 to Borealis Polymer OY, (hereinafter "Borealis '310") as pallied to claim 1 above and further in view of US patent 5,008,296 to Antoon et al., (hereinafter "Antoon")

The disclosure of Haffner and Borealis reference is discussed above. The references, while expressly disclosing possibility of adding various common processing

aids and filler, do not expressly disclose addition of polypropylene (PP) to the polyethylene (compositions). However, it is notoriously known in the art to add PP to polyethylene based composition for number of various reasons, including improved processability of filled polyethylene based composition. This position is supported by teachings of, for example, Antoon. See, for example, column 3, lines 16-21.

The invention as claimed, thus, would have been obvious from the combined teachings of the cited references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/517,641
Art Unit: 1796

Page 6

/ Irina S. Zemel/
Primary Examiner, Art Unit 1796

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Primary Examiner
Art Unit 1796

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